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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/804,575	03/19/2004	Scott M. Rix	43485-202168	7084

26694 7590 01/23/2006

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EXAMINER
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FRIEDHOFFER, MICHAEL A

ART UNIT	PAPER NUMBER
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2832

DATE MAILED: 01/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/804,575	<b>Applicant(s)</b> RIX ET AL.	
	<b>Examiner</b> Michael A. Friedhofer	<b>Art Unit</b> 2832	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10, 14-19, 21-24 and 31-33 is/are rejected.
- 7) ☒ Claim(s) 11-13, 20, 25, 29 and 30 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>12/2/04</u> . | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-10, 15, 16, and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Twyford.

Twyford discloses in figures 1-11 a keyboard having independently positionable key switches 24 including a keybase 26 including a key cap receiving opening and at least one gripping feature operative to facilitate gripping of the key base; and an actuatable key cap 64 arranged in the key receiving opening of the key base and being actuatable between an unactuated position and an actuated position. The portions 70 and 74 of the base 26 form a stepped configuration of bumps and depressions or grooves and ridges which create the scoops which do not extend to the key cap receiving opening. The scoops have a sufficient size to permit gripping the base and removal of the base from a surface without gripping the key cap. The key switch further includes guiding elements formed by the post 47 and the post receiving collar 43. An adhesive on a bottom surface of the key base secures the key base on the surface of the support.

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

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3. Claims 1, 14, 15, 17, 19, 21, 22, 31 are rejected under 35 U.S.C. 102(a) as being anticipated by Kurihara.

Kurihara discloses in figures 1-11 a keyboard including independently positionable switches including a keybase 2 and an actuatable key cap 4 located within a receiving opening of the key base in which the portions 2g and 2h form gripping features operative to facilitate gripping while providing alignment for attaching the keys to one another. Key dome 3 is arranged within the key cap and the key base and forms a flexible operative to bias the key cap in an unactuated position. The portions 4d, 4e of the keycap form at least one tab for engagement with the base 2 as seen but not described in figure 3. A label is located on the key cap and is illuminated for indentifying and for indicating operation of the switch. The key cap and the key base are connectable without additional parts. As for making the label an electronic display, this is a matter of engineering design choice in which LCD etc. are well known alternatives for the illuminated keycap as shown.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 33 is rejected under 35 U.S.C. 102(b) as being anticipated by Gatehouse.

Gatehouse discloses in figures 1-3 a method of switching a radio frequency inductive circuit by bringing the circuit into and out of resonance (col. 3, lines 21-41).

***Claim Rejections - 35 USC § 103***

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5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 23, 24, 26, 27, 28 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Kurihara or Twyford in view of Iggulden et al.

Both Kurihara and Twyford teach all of the claimed limitations with the exception of an RF circuit coil being present and arranged in either the cap, the base or the circuitboard.

Iggulden et al teach the presence of an rf coil in cooperation with circuitry on the circuit board for use in identifying each key cap as it is located on the keyboard.

It would have been obvious to one of ordinary skill in the art to utilize an rf coil in either the cap, the base, or the circuit board because it is for the purpose of identifying the key and the function to be performed to the computer to create greater flexibility in the interchangeability of the keys on the keyboard.

***Allowable Subject Matter***

7. Claims 11-13, 20, 25, and 29-30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

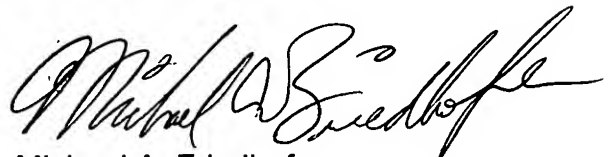
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8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Elsaesser et al, Wolf et al, Rix, Choi et al, and Rudd et al teach various reconfigurable keyboard structures.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael A. Friedhofer whose telephone number is 571-272-1992. The examiner can normally be reached on Mon-Fri 6:00 - 2:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin Enad can be reached on 571-272-1990. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Michael A. Friedhofer  
Primary Examiner  
Art Unit 2832

maf